

Population 12,204

Median Income \$32,800

Form of Govt Town Meeting/Town Administrator

Municipal Budget \$33,818,069

# Green Resources

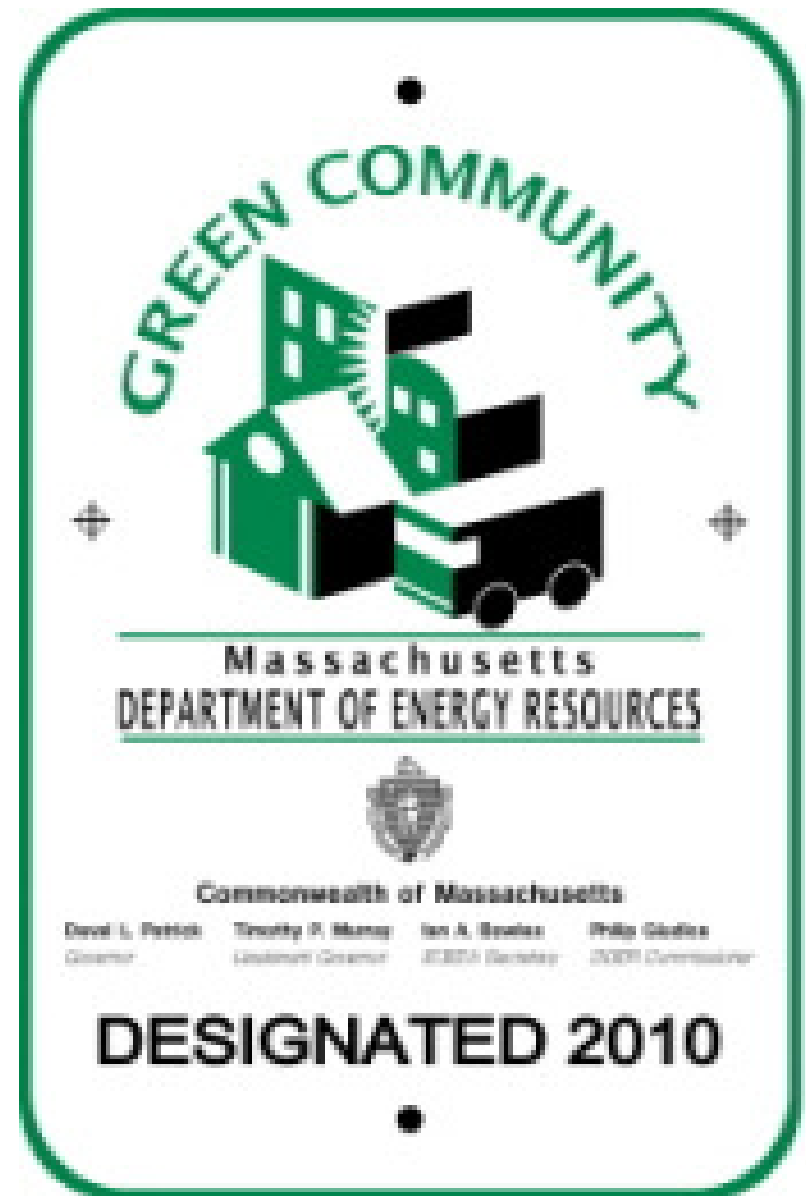
## Green Energy Committee Budget

Eight hundred ten dollars (US)

That's not enough. Look to leverage funding using local resources

MTC (now MassCEC) grant for additional study \$150,000  
some of which was returned  
unspent

Grant included permitting with DEP  
for post closure permits and  
sound studies



# Additional Funding from MTC

**TOWN OF KINGSTON  
COMMUNITY WIND  
PROJECT SITE SCREENING  
REPORT**

**July 18, 2007**

**By:KEMA, Inc. & Ecology and  
Environment, Inc**

**Funded by the Community  
Wind Collaborative of the  
Renewable Energy Trust**

**TOWN OF KINGSTON  
COMMUNITY WIND  
PROJECT FEASIBILITY  
STUDY REPORT**

**June 11, 2008**

**By:KEMA, Inc. & Ecology and &  
Environment, Inc**

**Funded by the Community  
Wind Collaborative of the  
Renewable Energy Trust**

# It's NOT Quick Easy Money

## Wind turbine Chronology

7/16/**2002** BoS create Kingston  
Secure Energy Future Committee

7/12/2005 Renewable Energy  
Research Laboratory (RERL) at  
UMass erects a metrological  
tower atop Town landfill and  
began monitoring the sites wind  
resources

1/6/**2012** Turbine hub and blades  
attached, KWI notified FAA  
"greatest height reached" 404  
feet Latitude: 41° 58' 43.66" N  
Longitude: 70° 42' 57.46" W

6/7/2012 Turbine Spinning

## Complete Chronology at Kingstonmass.org

- [http://www.kingstonmass.org/filestorage/40/924/3334/wind\\_turbine\\_chronology.pdf](http://www.kingstonmass.org/filestorage/40/924/3334/wind_turbine_chronology.pdf)

# Kingston to build and operate wind turbine at Wastewater treatment plant





# What really happened?

was Kingston Wind Independence

- Wind turbine owned by Kingston Wind Independence LLC
- Built by D&C Construction
- Erected on the capped landfill with DEP's blessing
- **Be flexible**
- **Start early**
- **Communicate with your stakeholders**



# Kingston Clean Renewable Energy Park

22 Acre Site

Town Land Fill

Adjacent to:

Rte 3

Wastewater Treatment  
Plant

Transfer Station

Abuts 104 acre Wind  
and Solar Overlay

District permitted for  
four 2.0 MW turbines





# Use the right equipment & check with DEP before turning the first spade

**Enthusiastic but not efficient**



**Better tools for digging foundation**





You need to dig a hole to get permission to dig a hole but  
you need permission to dig the first hole before you first dig  
Provided that you are communicating with DEP and  
providing the information needed it goes pretty well



5. Hole in liner.



6. Liner patch.



# Kingston's DEP interaction

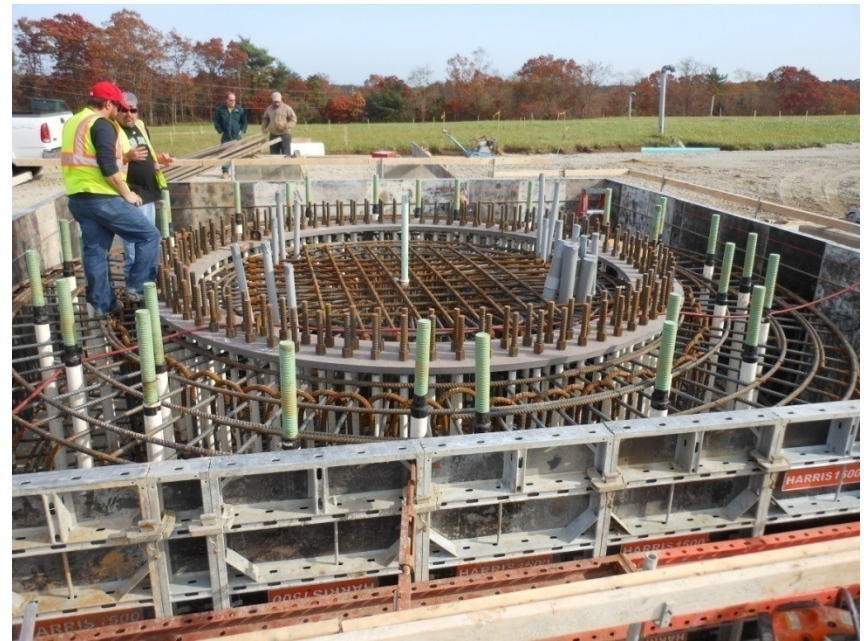
- Started on January 19, 2010, in Holyoke at the workshop MassDEP/DOER/EBC "Renewable Energy at Closed Landfills"
- March 29, 2010 received Conditional Approval from DEP for test borings on landfill site. Application was submitted February 17, 2010 following a lot of pre application discussion with DEP Lakeville Staff. Kudos to Dan Connick, Mark Dakers and company
- June 19, 2010 Report to DEP on Compliance with Conditional Approval BWP-SW 45
- May 27, 2011 Received Conditional Approval from DEP for wind turbine construction on landfill site

# Get help and use your resources wisely

- Kingston used MassCEC grant to hire a consultant to do the investigation and the preliminary engineering for the site
- In our case we hired the engineering firm who had been monitoring our landfill for twenty years
- This made for a less expensive process since the engineering company was familiar with the site and had much of data in house to get started



Pilings driven 100' into ground into the bedrock  
8' of concrete poured over a rebar work of art





# Finishing the foundation for the 1<sup>st</sup> tower section



Connecting tower base to one of 115 bolts on inner ring  
Bolt in foreground is 100' long inside the piling full of high tech grout that is driven into the bedrock





View from top of tube two  
(left) below are blades on landfill and last tower  
(right) O'Donnell & MBTA turbines



# Preparing blade assembly





Lifting the hub and blades starts before sunrise  
due to wind



1/6/12 Turbine hub and blades attached,  
notified FAA "greatest height reached" 404 feet  
Lat 41° 58' 43.66" N Long 70° 42' 57.46" W

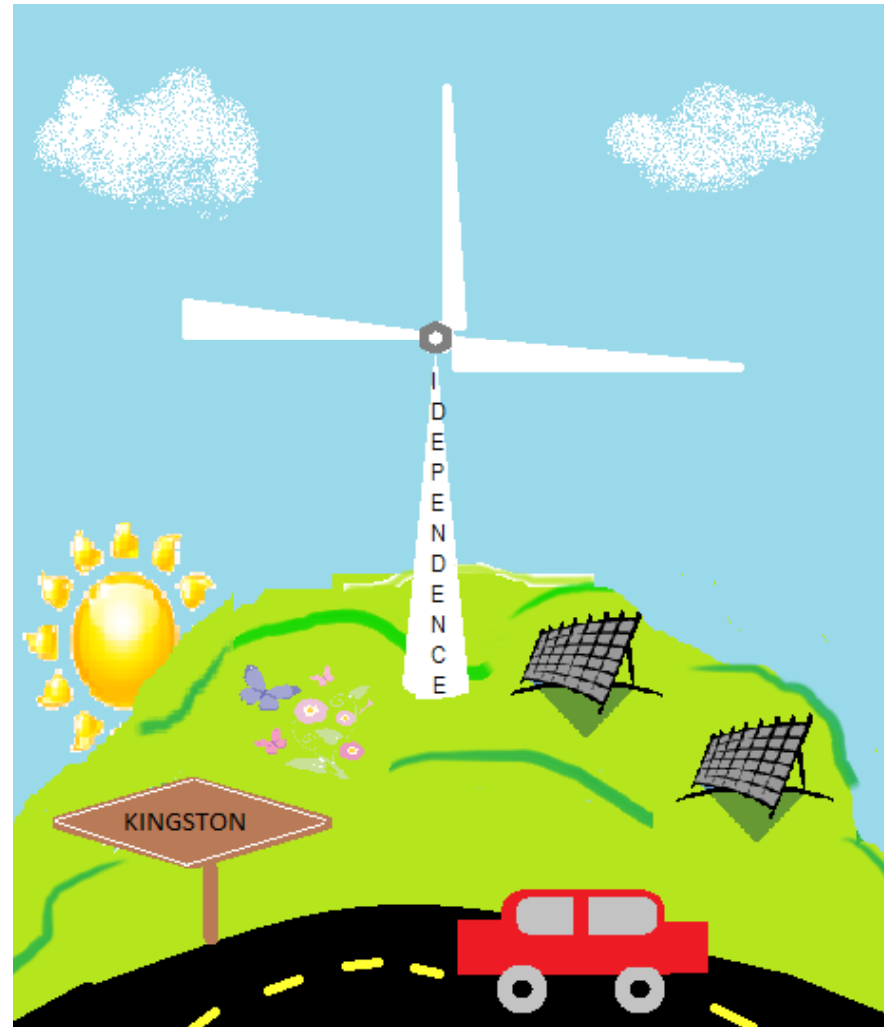


# Energy Independence inspires youth for a greener future





Successful projects happen through planning,  
wise use of resources and a “champion”  
In Kingston’s case that champion was Mark Beaton, a  
selectman and chairman of the Green Energy





While you may start down in the dumps  
Plan ahead, work with your stakeholders  
And while you may not end up on cloud 9  
You'll be closer

